

Analysis of Vocational Education and Training

India, Andhra Pradesh



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INDIA, Andhra Pradesh

General

The Republic of India has 28 States and 7 Union Territories. One of the bigger states is Andhra Pradesh. Of the over 1 billion people living in India, about 75.700.000 people live in Andhra Pradesh. The languages spoken are Telugu, English, Urdu and Hindi. English is the lingua franca of business and professional communication.

70 % of the Indians are below 35 years, which makes India a very young country.

Table: Age categories population Andhra Pradesh

| | |
|-------------------------|--------|
| under 15 years | 31,2 % |
| between 15 and 65 years | 63,9 % |
| Over 65 years | 4,9 % |

Source: CIA, 2006

People in India between the ages of 15 to 30 are nearly 300 million. There are 550 million people in India, who are less than 30 years of age and 728 million who are less than 35 years of age. Indians are very young. This is a big strength and advantage of India, which needs to be fully energized and strengthened (indiaeducation, 2006).

Economy

The economy of India has posted an excellent average growth rate of 6.8 % since 1994, reducing poverty by about 10 percentage points. India is capitalizing on its large numbers of well-educated people skilled in the English language to become a major exporter of software services and software workers. The huge and growing population is the fundamental social, economic, and environmental problem (country report Willemien, 2006). Andhra Pradesh had in 2001 a GDP per capita of 373 USD.

Main products and industries in India:

Agricultural products: rice, wheat, oilseed, cotton, jute, tea, sugarcane, potatoes; cattle, water buffalo, sheep, goats, poultry; fish

Industries: textiles, chemicals, food processing, steel, transportation equipment, cement, mining, petroleum, machinery, software.

Percent main workers engaged in various sectors in Andhra Pradesh:

| Distribution of Total Workers (Main & Marginal) as Cultivators, Agricultural Labourers, Workers in Household Industry and | | | | | | | | | | | | |
|---|----------------|---------------------|-------------------------|---------------------------------|---|---------|------------------------|---------|-------------------------------|---------|---------------|---------|
| Other Workers with Percentage to Total Workers - State, Districts | | | | | | | | | | | | |
| District Code | State/District | Total/ Rural/ Urban | Persons/ Males/ Females | Total Workers (Main + Marginal) | Category of workers (Main + Marginal) with percentage to Total Workers | | | | | | | |
| | | | | | Cultivators | | Agricultural Labourers | | Workers in Household Industry | | Other Workers | |
| | | | | | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | ANDHRA PRADESH | Total | Persons | 34,865,117 | 7,903,635 | 22.7 | 13,818,754 | 39.6 | 1,569,699 | 4.5 | 11,573,029 | 33.2 |
| | | | Males | 21,725,810 | 5,287,272 | 24.3 | 6,431,834 | 29.6 | 666,358 | 3.1 | 9,340,346 | 43.0 |
| | | | Females | 13,139,307 | 2,616,363 | 19.9 | 7,386,920 | 56.2 | 903,341 | 6.9 | 2,232,683 | 17.0 |
| | | Rural | Persons | 28,159,160 | 7,784,145 | 27.6 | 13,379,667 | 47.5 | 1,198,770 | 4.3 | 5,796,578 | 20.6 |
| | | | Males | 16,309,047 | 5,188,706 | 31.8 | 6,188,479 | 37.9 | 481,882 | 3.0 | 4,449,980 | 27.3 |
| | | | Females | 11,850,113 | 2,595,439 | 21.9 | 7,191,188 | 60.7 | 716,888 | 6.0 | 1,346,598 | 11.4 |
| | | Urban | Persons | 6,705,957 | 119,490 | 1.8 | 439,087 | 6.5 | 370,929 | 5.5 | 5,776,451 | 86.2 |
| | | | Males | 5,416,763 | 98,566 | 1.8 | 243,355 | 4.5 | 184,476 | 3.4 | 4,890,366 | 90.3 |
| | | | Females | 1,289,194 | 20,924 | 1.6 | 195,732 | 15.2 | 186,453 | 14.5 | 886,085 | 68.7 |

Source : www.censusindia.inc.in

The service sector in Andhra Pradesh will need to expand at almost 16 times its current size and grow at the rate of 12% a year. This sector is expected to be a major generator of new jobs, especially in rural areas. In rural and semi rural areas small-scale service segment is expected to provide significant employment opportunities in higher value-added jobs. The growth of this sector will enable occupational shift and productive employment of AP's large number of agriculture labour, women, youth and artisans. Hence the Government will focus on developing services sector as a critical aspect of realizing its growth aspirations. This will be accomplished by skill development, provision of micro-credit and conducive policy environment to boost the service sector (SPPE, gov of AP, 2003).

Out of the total 400 million employed in India, about 28 million, or 7%, work in the organized sector (2 million in Public Sector Undertakings, 18 million with Central & State Governments and 8 million with the organized private sector). This sector is expensive and overstaffed, leading to relatively high costs and inefficiency. The present education system seems to be preparing the youth for this sector. This is the rich or elite sector of India and needs no form of subsidy whatsoever.

372 million, or 93%, work in the unorganized sector, in agriculture, construction and with SME's. They are the ones who need help in primary & secondary education (P&SE), enterprise skills development (ESD) and also vocational education & training (VET).

The informal sector generally comprises small entrepreneurs, paid and unpaid establishment workers, independent workers and casual workers. For the small entrepreneurs the need is for managerial and marketing skills besides the technical skills, as well as regular upgrading of skills and access to knowledge and information (ILO, 2002).

The majority of informal workers learn their skills on the job, something that is common to both the formal and informal sectors. However, as the ILO (2002) points out, apprenticeship might provide basic skills but does not familiarise the workers with new technologies or managerial skills. Constraints of both time and money often prevent workers in the formal and informal sectors from acquiring further training, even when such facilities exist. In the manufacturing sector, indigenous forms of training may be sufficient for adapting technology to simple production and labour-intensive activity, but that does not necessarily mean more efficient production or market competitiveness. Modern technical training probably needs to complement, rather than replace indigenous work techniques (ILO, 2002).

Employment in India

| | |
|--------------------------|--------------------|
| Total unemployment India | 300.000.000 people |
| Total employment India | 400.000.000 people |
| In organised sector | 7 % |
| In unorganised sector | 93 % |

Though unemployment rate of 6.67 % in Andhra Pradesh as per NSS0 (national sample survey organisation) data may look small, still underemployment is a matter of concern. Unemployment rate among the educated is higher (7.3) than the unemployment rate of the illiterate. There are about 3.100.000 job seekers registered in employment exchanges in the State of Andhra Pradesh. A large share of them (57%) 1.800.000 people are without any skills. About 50,000 professional Postgraduates and 562.167 educated skilled are also awaiting jobs in organized sector. Population explosion, growth

of labour force, underemployment, illiteracy, unskilled persons, and globalization of world economy are some of the concerns for Andhra Pradesh. The country's economic performance depends critically on access to and the adoption of new technology and improving the skills of the labour force (Govt of AP, 2003)

A working population of 29.964 million forms 45.05 percent of the total population of the State. Cultivators and agricultural labourer's constitute 80.80 % of the main workers in the rural areas. Andhra Pradesh is home to a skilled and dedicated workforce. According to a study conducted by NASSCOM (National Association of Service and Software Companies), 23% of India's software professionals are from Andhra Pradesh. This large number provides a distinct comparative edge to the State in it's transformation (classifiedsindia, 2006).

Unemployment in Andhra Pradesh

| | |
|-------------------------------|------------------------------------|
| Total No.of job seekers in AP | 3.151.664 |
| Total No.of urban job seekers | 1.190.790 (37,8 %) |
| Urban / Men | 847.817 |
| Urban / Women | 342.973 |
| Total no.of Rural Job-seekers | 1.960.874 (62,2 %) |
| Rural / Men | 1.598.865 (50.7% of all rural men) |
| Rural / Women | 362.009 (11.5% of all rural women) |

Govt of AP, 2003

Unemployment rates for educated youth were 14.7 per cent for those educated up to the secondary level and above and 23.7 per cent (24.5 per cent for urban areas) for those with any kind of technical education. At the same time, the technically educated, as well as the 'general line' graduates are out of touch with working and technical conditions as well as possibilities in micro and small enterprises. There is little or no attempt to cater to the needs of those who wish to continue living and working in rural areas and this compels them to join the urban informal sector because of their shortage of skills. In most rural areas, facilities for elementary education are absent, let alone vocational facilities. Some efforts at developing such facilities are being made, but are unfortunately not meeting with any success, apart from a few isolated examples (ILO, 2002).

The Government of Andhra Pradesh states the following in their "Strategy Paper on Employment Generation":

"Rapid globalization and fast-paced technological progress also pose new challenges. The increased competition and economic change that result from the combined forces of global economic integration and technological advance can cause instability and difficulties in maintaining the employability of large segments of a country's labour force. At the same time, the new economic forces provide, new opportunities for economic growth and expansion of employment. The level and quality of skills are becoming critical factors in taking advantage of the opportunities thrown open by the rapid technological changes and more open economy.

Andhra Pradesh' economic performance depends critically on access to and the adoption of new technology and improving the skills of labour force. In the face of this rapid globalization and competitive pressures we have greater need to invest in the skill development and training of APs work force.

To meet this changing demand for skills successfully, the development of more responsive training systems and institutions must be given the highest priority. For labour markets to minimize unemployment, workers need to be able to transfer between

jobs with updated and enhanced skills. For instance, the labour force in agriculture sector may have to be provided opportunities for employment in the industries & services sector.”

The ‘United Progressive Alliance’ (UPA) has written the ‘Common Minimum Programme’ (CMP). This CMP has formulated 6 basic principles which will lead the way for the government:

1. A sustainable growth of 7 – 8 % per year, with growing employment opportunities
2. To keep and protect the social harmony
3. Improve the well being of the farmers and workers in the informal sector
4. The empowerment of women on all terrains
5. Equal chances in the area of employment and education for the lowest casts / (‘Scheduled Castes’), indigenous people. Other backward people and religious minorities;
6. Free the creative potential of the professional and private sector.

Source: Ministry of Foreign Affairs, 2006

Only 5 % of the indian industrial workforce is skilled as compared to 85 % of the South East Asian countries (enquete, feb 2006).

Education

Education is an integral part of the country’s development process and this has always been accorded high priority. Universalisation of elementary education, equalisation of educational opportunities in rural and urban areas, women’s education, vocationalisation of education, modernisation of technical education, improvement of quality content and process of education at all levels are some of the themes of national importance in the field of education (Unesco/unevoc, 1997)

In India about 450.000.000 people are illiterate (ca 45 %). In Andhra Pradesh this rate is about 66 %.

Literacy and school enrolment in Andhra Pradesh

| | Literacy rate | 10 – 14 yr | 15 – 19 yr | Percentage population attending school | |
|--------|---------------|------------|------------|--|------------|
| | | | | 6 – 10 yr | 11 – 13 yr |
| Total | 44,1 % | 64,5 % | 57,7 % | 53 | 57,6 |
| Male | 55,1 % | 73,3 % | 67,9 % | 59,2 | 67,2 |
| Female | 32,7 % | 55 % | 46,9 % | 46,7 | 47,1 |

Source: classifiedsindia, 2006

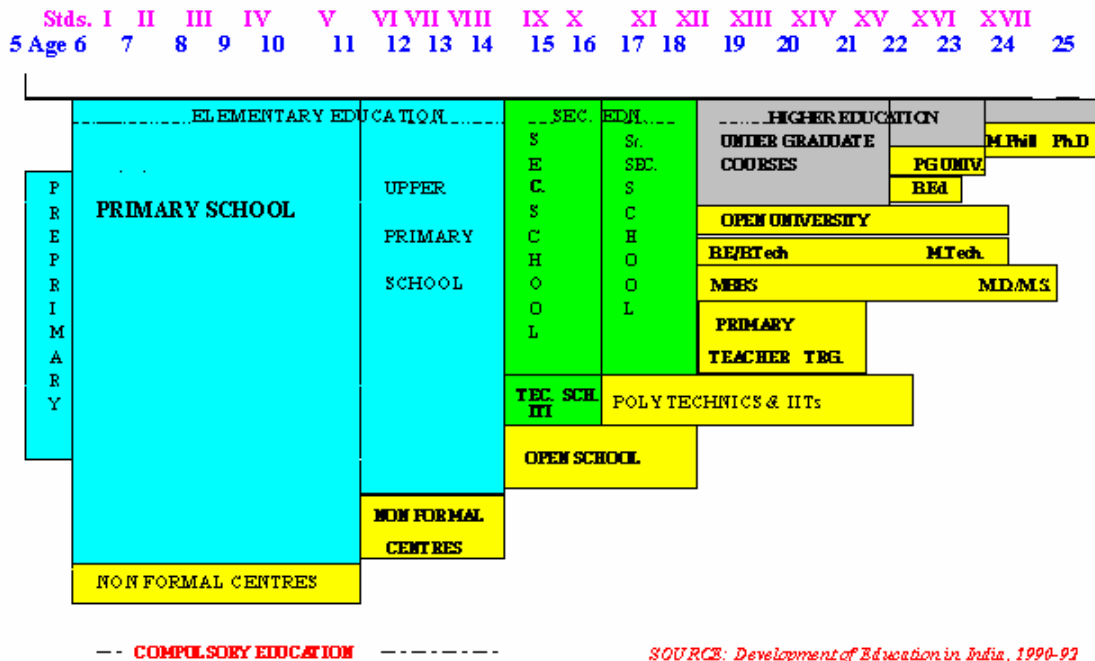
The State has a large number of universities, technical colleges, ITIs, polytechnics etc. It has more than 50 prestigious Central and State research and training establishments like Administrative Staff College of India, Indian Institute of Chemical Technology, Centre for Cellular and Micro Biology, Defence Research and Development Laboratories, and more (classifiedsindia, 2006).

A uniform structure of school education has been adopted by all the States and Union Territories of India. The educational system in India has a 10+2(+3) pattern. The first ten

years provide undifferentiated general education. The +2 stage provides higher secondary education, with differentiation (+3) into academic and vocational streams. The Primary Stage consists of Classes I-V, i.e., of five years duration. The Middle Stage of education comprises Classes VI – VII, The High School stage comprises classes VIII to X and the the Higher Secondary / Senior Secondary stage of school comprises classes XI-XII (10+2 pattern)

Source: <http://www.education.nic.in/htmlweb/natpol.htm>

STRUCTURE OF EDUCATION IN INDIA



Source: <http://www.education.nic.in/htmlweb/natpol.htm>

The drop out rates in Andhra Pradesh at the primary stage of education have been steadily going down but the number of children dropping out of the system is still quite high. Out of every hundred children enrolled in Class-I, only 60 are completing Class-V and only 42 are going on to complete Class-VII. The drop out rate is higher in the case of girls as compared to boys (SPPE, Gov of AP, 2003).

Level of education in Andhra Pradesh

| | Maximum level of education | | | | |
|--------|----------------------------|------------------|-----------------|-------------------|----------------|
| | Below primary | Primary – middle | Middle - matric | Matric - graduate | Above graduate |
| Total | 28,9 | 32,2 | 12,4 | 20,5 | 6 |
| Male | 26,8 | 30,3 | 12,7 | 23 | 7,2 |
| Female | 32,4 | 35,6 | 11,8 | 16,3 | 3,9 |

Source: classifiedsindia, 2006

| ANDHRA PRADESH EDUCATIONAL STATISTICS : 2004-2005 | | | | | | | | | | |
|---|-----------------------|------------------|------------------|-------------------|--------------|-----------------------------|---------------|----------------|-------------------|----------------|
| No. | Type of Schools | Central | State . | Z.P.P & | Municipal | Private schools | | TOTAL | TOTAL | TOTAL |
| | | Govt. | Govt. | M.P.P | | Govt. Aided | Unaided | SCHOOLS | STUDENTS | TEACHERS |
| 1 | Primary Schools | 30 | 5,055 | 48,104 | 1,455 | 2,280 | 4,766 | 61,680 | 5,524,363 | 192,486 |
| 2 | Upper Primary Schools | 2 | 567 | 10,876 | 355 | 476 | 4391 | 16,667 | 3172877 | 124978 |
| 3 | High Schools | 43 | 1,284 | 7397 | 283 | 870 | 4465 | 14,342 | 4633242 | 156540 |
| 4 | Higher Secondary (+2) | 47 | -- | -- | -- | -- | 32 | 79 | 80586 | 3475 |
| TOTALS | | 122 | 6,906 | 66,377 | 2,093 | 3,626 | 13,654 | 92,768 | 13,411,068 | 477,479 |
| Students information: | | | | | | | | | | |
| | | Boys | Girls | Total | | Teachers information | | Total | | |
| | | | | Students | | | | | | |
| 1 | Primary Schools | 2,779,410 | 2,744,953 | 5,524,363 | | Govt. funded Schools | | 279,368 | | |
| 2 | Upper Primary Schools | 1,647,443 | 1,525,434 | 3,172,877 | | Unaided Schools | | 135,426 | | |
| 3 | High Schools | 2,472,490 | 2,160,752 | 4,633,242 | | Vidhya volunteers | | 62,685 | | |
| 4 | Higher Secondary (+2) | 40,791 | 39,795 | 80,586 | | TOTAL | | 477,479 | | |
| TOTALS | | 6,940,134 | 6,470,934 | 13,411,068 | | | | | | |
| M.P.P : Mandal Praja Parishath - Schools located in mandals | | | | | | | | | | |
| Z.P.P : Zilla Praja Parishath - Schools located in Zillas (Districts) | | | | | | | | | | |
| Teachers working as Vidhya Volunteers are being paid partly by govt. and partly by the Village panchayaths | | | | | | | | | | |
| Some of the private school are funded by Govt. which are called as Aided Schools and all the other private School are unaided | | | | | | | | | | |
| Schools located in the Municipalities are called Municipal Schools which are funded by Govt. | | | | | | | | | | |

While India needs IIT's, IIM's and Medical colleges, (in fact are is too many higher education institutes) the real requirement is for Primary Education & Secondary Education and Vocational Education & Training. 100% of India's population need basic or Primary + Secondary education while 90% need to get into some sort of Vocational Education & Training after high school.

About 29 million children enter the present educational system at different stages. Nearly 94% drops out at different stages and only 1.6 million make it through the present educational system, which lays emphasis only on higher education. The balance, 27.4 million are left on their own to find work for themselves or may get some help from Central & State aided programs (indiaeducation, 2006)

While a part of the population of India has no access to education, those who do have access suffer from the weaknesses of the education system. The quality of education has been affected by the lack of proper management and administration and inadequate teaching standards. This, coupled with the prevalence of child labour and negative social attitude towards educating girls, has encouraged high drop out rates (ADB, 1996).

Vocational Education and training

| | |
|---------------------|---|
| How is VET defined? | “ a comprehensive term referring to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to |
|---------------------|---|

| | |
|---|---|
| | occupation in various sectors of economic and social life. It applies to all forms of technical and vocational education provided in educational institutions or through cooperative programs organized jointly by educational institutions at one hand, and industrial, agricultural, commercial and any other undertaking related to the world of work, on the other." |
| Formal, informal and non formal? Does it include training on the job? Which ones have priority in governmental practices and policy? How successful are they? | Formal, informal as well as non formal exists. It is organised by government, commercial actors, NGOs, individuals, training on the job, churches and integrated in the education system. VET has been a part of the official curriculum, but nowadays there is a shift from class room to self employment programmes. Informal education is acquisition of knowledge outside the class rooms from the socio-cultural environment. For example a blacksmith learns his skill from the family circle. An agricultural labourer from social environment. Informal VET requires some level of education. Formal VET is organised by the government (ministry of human resources development and directorate general of employment and training under the Ministry of Labour) and private agencies (as ngos and churches) with a fixed curriculum (enquete, 18 Feb 2006). |
| % youngsters in vocational education and training, regional differences | 39594 students in 374 vocational higher secondary schools (52,6 % girls) |
| Share of flow from regular education to vocational education and training | NA |
| Gender ratio in VET on national level, regional differences | According to recent statistics published by the government, out of the 3,72 million unemployed, 2,14 million are women [59 %] (Enquete, 18 feb 2006). In VET 70 % are men and 30 % are women (Enquete, 11 feb 2006) Co-education permitted; women were neglected; now slow changes are appearing (Enquete, 13 Feb 2006). |
| Which institutions pay attention to VET? | VET is provided by all kinds of institutions, like industrial training institutions (ITI), farm sciences centres, polytechnics, NGOs, Schools, State government departments, product wise boards and village industry commissions. |
| In which regions are they active, share urban / rural? | In rural as well as in urban areas. More in urban areas. New initiatives mainly focus on urban areas as there are more jobs in urban areas for the graduates (enquete, 11 feb 2006). |

India needs millions of trained people in the area of services for Agriculture, Floriculture, Horticulture, Sericulture, Fishery, Health Care, Tourism, Trading, Services, Business and hundreds of skills for the Manufacturing Sector (indiaeducation, 2006).

The VET-system in India is multi-sectoral. Each ministry is responsible for manpower development in that sector. Three major types of VET can be distinguished;

- **Technical industrial arts and crafts school;** one vocational subject like carpentry, moulding, plumbing or rural technology is offered as a kind of offshoot of general schooling.
- **Technician education;** polytechnics which provide broad based education in engineering and some non-engineering areas.

- **Higher secondary vocational education;** to develop skilled manpower through diversified courses (production and service oriented).

VET is provided by all kinds of institutions, like industrial training institutions (ITI), farm sciences centres, polytechnics, NGOs, Schools, State government departments, product wise boards and village industry commissions.

Actually there are three different types of (formal) TVET institutions related to the kinds of VET mentioned above:

1. ITIs
2. Polytechnics
3. Vocational Education Institutes (VEI)

The Directorate General of Employment and Training (DGET) of the Ministry of Labour is running the ITIs throughout the country, both in government and private sectors to ensure regular supply of skilled manpower at different levels of industry.

Polytechnic graduates form a vital link between professional engineers and skilled workers. The VEIs provide training with the same nature and content as +2 general education institutions. There are no VEIs in Andhra Pradesh (unesco unevoc, 1997).

| | Number | Duration | Enrolment capacity |
|--------------|--------|-------------|--------------------|
| ITI | 4.047 | 1 – 2 years | 6.8 million |
| Polytechnics | 600* | 3 years* | 80.000* |
| VEI | 251 | 1-2 years | NA |

Source: DGET, 2006; * Unesco Unevoc, 1997

Non formal vocational skills training

The concept of vocational skills training is an old family tradition in India. Even today a large number of artisans are trained by the elders of the family to carry on the family vocation. While such traditional skills are being promoted on one hand, on the other hand, technological invasion is weaning away the artisan's children from adopting family trades/skills (unesco unevoc, 1997).

Growth in VET in Asian countries is influenced by the role of the state versus the role of the private sector. Governments have a dominant role in provision of school-based VET in most Asian economies. The quality of private VET-institutions has been found to be generally poor compared to public institutions in many Asian countries.

Data shows that India has a very small vocational secondary educational system. It has an enrolment of less than 2% as a percentage of the total enrolment in secondary education mid/late 1990s (country report Willemien, 2006).

The higher secondary vocationalisation programme aims to develop skilled manpower through diversified courses to meet the requirements of mainly the unorganised sector and to prepare people for the world of work in general through a large number of self employment oriented courses, not precluding wage employment orientation of many courses. Through diversification into production and service oriented courses, it is desired to reduce the aimless pursuit of higher education and thereby reduce pressure from the tertiary education (indiaeducation, 2006).

In 1989-90 there were more than 150 courses in different states which are grouped under the major areas of agriculture, business and commerce, engineering and

technology health and paramedical, home science and humanitiies. The design consists of theory and practice relating to the vocational field, related subjects, language and general foundation studies which includes entrepreneurship. During that time a total of 168.680 students were enrolled in the first year of the two year programme. There are more than 5000 full time teachers teaching these courses (indiaeducation, 2006). In Germany and the Central European countries, nearly 80 to 90% of the children entering the age of 14 and beyond go in for vocational education & training. About 10 to 15% go ahead for higher studies. The same is also true for the 'Asian Tigers' and USA. In India, generally, every one tries to go in for Higher Education (indiaeducation, 2006).

The poor education indicators are of serious concern, as the poor will find it difficult to meet the skill requirements of jobs being created in the non-farm economy in the future (SPPE, Gov of AP, 2003).

Non manufacturing sector

Contemporary approaches to training, in India as well as in many developing countries, are geared to meet the needs of the manufacturing sector. There has been a strong resistance to introducing training for non-manufacturing sectors, including the services and trade sectors.

Outside the manufacturing sector, the issue remains as to how independent workers, rickshaw pullers and hawkers and the like can be trained. They are often highly unorganised and may not be operating from fixed locations. Besides, these workers have irregular working hours. Coupled with all this, they have limited resources and little time to undergo training. Many are so poor that they may not be able to afford even minimal extra expenses. Finding the time to attend training programmes or courses is a major constraint, as their time needs to be spent earning a livelihood. Rampant illiteracy too restricts the potential of retraining and upgrading.

Casual workers, a most disadvantaged category, rely heavily on manual labour. These jobs need little training and earnings are usually low, although some may earn more than their counterparts in the formal sector. Work skills [in the informal sector] are usually learnt on the job (ILO, 2002).

Gender

It is well known that men and women are treated differently in the informal labour market, and that the bulk of the burden of working for survival, formulating and actualising the livelihood strategies falls on the women (ILO, 2002).

Professional education in Andhra Pradesh

| | |
|-----------------------------|-------------|
| Number of professional VTCs | 52 |
| Total | 6249 |
| Enrolment of boys | 4033 |
| Enrolment of girls | 2216 |
| Number of teachers | 612 |
| Men | 296 |
| Women | 316 |

Source: classifiedsindia, 2006

In the Strategy Paper on Poverty Eradication (2003) the government of Andhra Pradesh states that it will meet the challenges of the 21st century for providing knowledge based and skilled manpower with reference to emerging areas of manpower requirement by

including IT Education in School curriculum and reorienting the Secondary Education to also incorporate vocational education (SPPE, 2003).

Technical education in Andhra Pradesh

| | Number | Intake capacity |
|----------------------|--------|-----------------|
| Engineering Colleges | 253 | 84.265 |
| Polytechnic Colleges | n.a. | 35.920 |
| pharmacy colleges | 61 | 3.600 |
| MCA colleges | 326 | 12.863 |
| MBA colleges | 222 | 9.413 |
| Medical Colleges | 29 | 3.818 |

Source: DGET, 2006

The practice component of a vocational course varies from 50 to 70%. The curricula and instructional materials are also developed by the R&D institutions concerned with each sector (indiaeducation, 2006).

Recent development in VET in India:

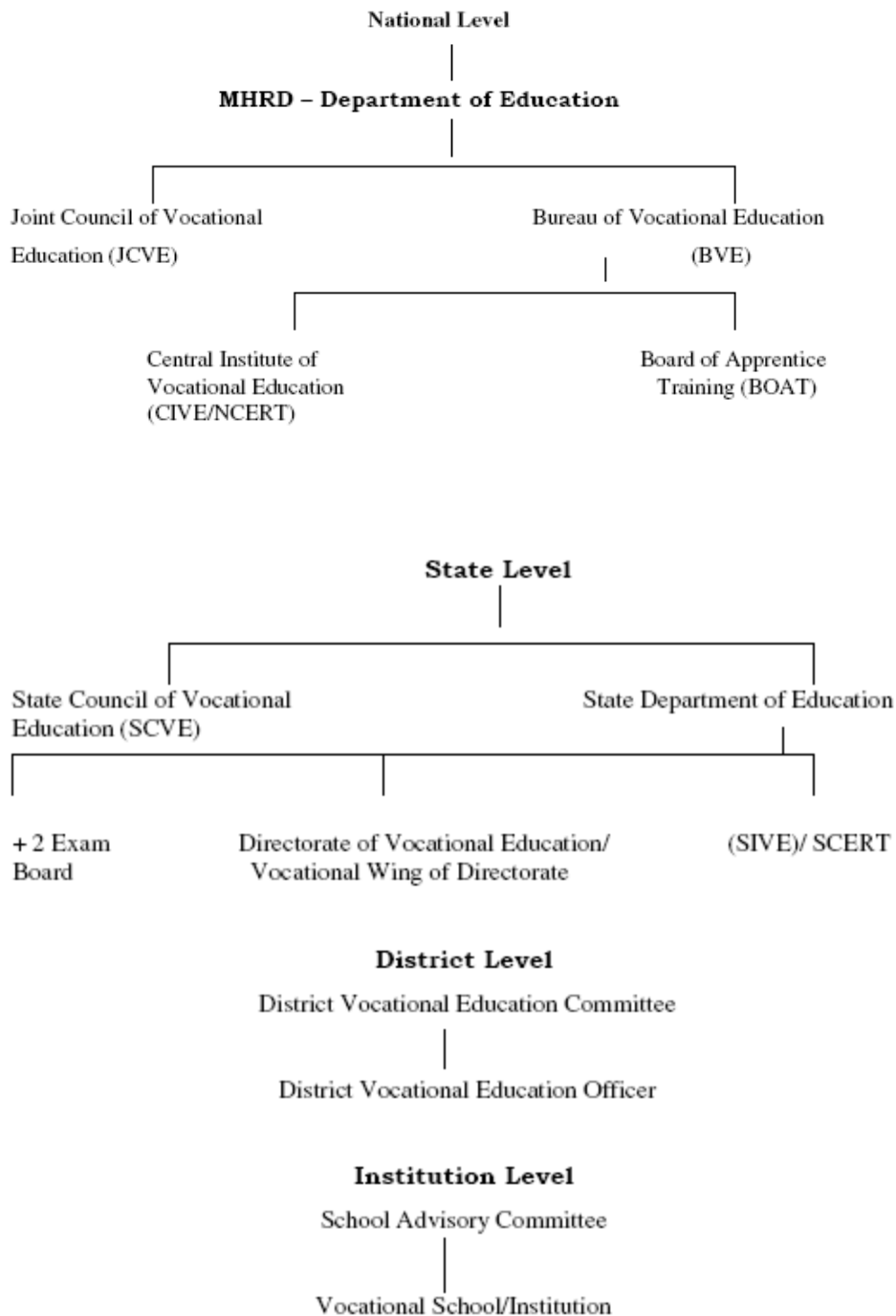
- To up grade the existing skills of the craftsmen through retraining / advanced training.
- To meet the changing demands of the labour market by timely introversion through training in various technical trades and skill.
- Introducing the VET from high school and college level
- Encouraging private institutions to inculcate in regular studies etc., and
- Extending more opportunities to minority groups and tribal groups.

(Source: enquete 11 and 13 feb 2006)

In years past, Vocational and Secular Education were linked; they were disconnected for a period; now the same courses are offered as separate training. (Enquete 13 Feb 2006)

Policy and organisation of VET

Management Structure



Source: MANAGEMENT STRUCTURE: National working group on Vocationalisation of education

The Directorate General of Employment and Training (DGET) in the Ministry of Labour is the apex organisation for development and co operation at national level for the programs relating to VET (Enquete, 11 feb 2006).

In a report of the ADB (1996) the following was stated:

Besides the district-level programs, the National Education Policy is focusing on

- (i) promoting total literacy campaigns in 345 districts to make 100 million adults functionally literate;
- (ii) emphasizing reduction in gender disparities through free education for girls, provision for women's education and empowerment in the education system, and recruitment of rural women as teachers in various schemes and areas;
- (iii) upgrading of secondary education and diverting 25 percent of higher secondary students to the vocational stream by the year 2000; and
- (iv) improving the capacity and quality of technical education by allocating block grants to technical institutions while seeking greater accountability, economy, and cost effectiveness of expenditures.

At the policy level, India's Constitution has for long advocated universalization of compulsory and free education up to middle school. This goal has as yet not been realized because of the magnitude of problem and resource constraints. Every year, the growing population base adds to the number of children eligible for education. Meanwhile, public expenditure devoted for education has been low, making it difficult to attain universal education (ADB, 1996)

The Technical/Vocational Education and Training is multi-sectoral in nature. Each ministry/department in Central as well as State Governments is responsible for manpower development in that sector. While some offer regular formal or non-formal courses, others draw from the general pool of educated and trained manpower (indiaeducation, 2006).

Adult education programmes in Andhra Pradesh

The Government of Andhra Pradesh is committed to ensuring that Andhra Pradesh will not be just a literate but a knowledge society capable of meeting the challenges posed by the 21st Century and will provide avenues to every person to realise his or her full potential through equitable access to education opportunities. Within the overall framework, Adult Education Department aims at achieving the following goals:

1. To plan and implement the programme of eradication of illiteracy among the adults of 15-35 age-group in the State.
2. To plan and implement the Continuing Education Scheme to sustain and furtherance of skills acquired and also to create lifelong learning environment for the target groups and others.
3. To monitor, supervise and guide literacy and Continuing Education Programmes.

In order to achieve the goals, the Adult Education Department is implementing the following programmes:

1. Basic Literacy Programme
2. Continuing Education Programme
3. Bapuji Vignana Kendras

(aponline, 2002)

The government is still experimenting with various systems. No practical or ideal system has yet been evolved (enquete, 18 Feb 2006).

The main goals on VET in national policy

Goals mentioned for TVET are:

Prepare the youth for a vocation of their choice and build up a formidable Work-Force of International Quality, which would have demand not only in India, but in all countries. In India only IT training is world class (indiaeducation, 2006). The main goal of VET is for graduates to find work in existing jobs (enquete, 11 and 18 feb 2006). To a less extent VET is also focused on stimulating entrepreneurship, and to stimulate flow to higher education (enquete, 13 feb 2006).

The National Policy on Education (1986) has accorded very high priority to the programme of Vocationalization of Education. In inter alia, it states that, the introduction of systematic, well planned and rigorously implemented programmes of vocational education is crucial in the proposed educational reorganization. It states that the vocational education will be a district stream, intended to prepare students for identified occupations spanning several areas of activity and that vocational courses will ordinarily be provided after the secondary stage, but keeping the scheme flexible, they may also be available after class VIII.

The revised policy formulations (1992) retain policy framework laid by NPE 1986. Moreover, it envisages, children at the Higher Secondary level are imparted generic vocational courses which cut across several occupational fields and which are not occupational specific.

Some important objectives of Vocational Education mentioned are:

- To diversify a sizeable segment of students at the senior secondary stage to the world of work.
- To link education with productivity, economic development and individual prosperity.
- To meet the skilled and middle level manpower needs of the growing sectors of the economy – both organised and unorganized.
- To reduce the miss-match between demand and supply of manpower.
- To prepare students for self -reliance and gainful employment.
- To prevent aimless pursuit of higher education.

Source: Vocational education at +2 level in ANDHRA PRADESH

Relation government and trade and industry (private) companies in VET

NA

Relation between governmental and private initiatives on VET

The establishment of school enterprises at the vocational secondary level (classes IX and X) in India needs to be seen as an attempt to evolve from prevocational options of broad vocational relevance to job specific training introducing goods and services for the market. The Education Commission (1964-1966) recommended vocationalisation of secondary education (upper and lower). The National Policy on Education (1986 and 1992) gave renewed emphasis to the introduction of vocational education programme in classes IX and X. The significant purpose of vocational education programme (VEP) in classes IX and X is to provide students with professional skills which are required in the economy. 70% of the time available is devoted to vocational theory and skill training.

Apart from the practical subjects in laboratories and training workshops at the institution, it is planned that strong school-industry linkages develop so that students of vocational courses get an exposure to real work situations in the industry. Highly skilled professionals are invited to schools to teach practical subjects to vocational students. There is provision for on-the-job training in the evenings during the summer vacations at the end of class XI.

Under the existing vocational education programme (VEP), infrastructure facilities have been provided for training in vocational skills. These same facilities are going to be used for the school enterprise after ensuring that they are relevant to the operation of school enterprises. With these minimum facilities, the school enterprise is expected to generate its own resources in future. Raw materials are provided through the centrally sponsored scheme. Students learn the skills in the training workshop-cumproductive enterprise, and gain experience in the marketing of products and services (unesco unevoc, 1998).

International donors / INGOs involved in VET

There some international donors/NGOS are involved in VET; some of them are World Vision, Tearfund, Leprosy mission, Woord en Daad. The International donors, INGOs are supporting the local NGOs in conducting VETs (enquete, 11 feb 2006).

A large number of (local) NGOs have taken up the work of training of rural youths, school drop outs, special groups, women and even adults in local specific and need based areas. The duration of training varies from one week to one year (unesco unevoc, 1997).

NGO's and VTC's focus specifically on drop-outs and less educated according to the contact person at COUNT. The NGO Churches of South India has many locations in India where education is provided and also vocational training is given. All the VTC's of CSI form a network of VTC's where information is exchanged. GMR Varalakshmi Foundation (GMRVF) is the Corporate Social Responsibility arm of the GMR Group. The foundation runs programmes in a livelihoods training centre in Hyderabad, which will train unemployed youth with regard to both soft and hard skills, in order to increase their employability or take up micro-entrepreneurship, including liaison with NGOs, government, potential employers, etc (Enquete, 13 Feb 2006).

Networks around VET

The school enterprises manage/operate through the School Vocational Education Committee consisting of the principal/vice-principal as the chairperson, the teachers concerned, and 2 to 3 members of the community including representatives of the PTA (Parent Teachers Association), industry and government agencies. In addition, the person responsible for accounting and storekeeping in the school and one student representative for each vocation may be co-opted onto this committee.

The School Vocational Education Committee is responsible for approving jobs, training teachers, ensuring the availability of raw materials, giving all needed support, publicising the activities and creating new markets, evaluating the completed projects and monitoring the running of school enterprises, ensuring the quality of production and services, ensuring proper running and maintenance, developing the mechanism of proper economic disposal of unsold rejected items, comparing performance indices to enhance productivity. Finally, this committee will report on the activities to the higher

authorities and create, in general, a healthy climate for the survival of the enterprises (Unesco unevoc 1998).

It has also been proposed that co-operation and co-ordination should be developed with different vocational institutions in the neighbourhood which run school enterprises with regard to the exchange of experience, fixing of rates for services and establishing codes/ethics to be observed.

Students and teachers operating a school enterprise make up the working group. Monitoring is a joint function of the working group and the School Vocational Education Committee. Under the centrally sponsored scheme on vocationalisation of secondary education, every school running VEP receives a financial assistance of 200,000 rupees per course of which 100,000 rupees is used for the construction of work sheds, and the other 100,000 for provision of equipment/workshop and laboratory facilities (Unesco unevoc 1998).

Until recently, collaboration with other NGOs or the government was not allowed. But this is slowly changing. Foreign collaboration with private sector is allowed now (enquete, 18 feb 2006).

Word and Deed mentions AMG and Boystown as networks. They also mention existing networks between public and private actors, NGOs and VTCs. They operate on regional as well as national level. The networks organise VET, they mobilise the sector to cooperate in VET and they give training (enquete, 11 feb 2006).

COUNT mentioned a network of SETWIN – a Govt. organization, and the National Counsel for Vocational Training. These networks exist of NGOs and VTCs. They work on regional (Andhra Pradesh Govt. State Level) as well as national level (National Counsel for Vocational Training). These networks organise VET and provide training. The networks have a relationship with international NGOs and donors by support both in guidance and finance. They are related to the government in providing subsidies and training. The relationship with the networks with trade and industry sector is focused on providing jobs (Enquete, 13 Feb 2006)

Churches of South India

The NGO Churches of South India has many locations in India where education is provided and also vocational training is given. All the VTC's of CSI form a network of VTC's where information is exchanged.

SKIP

A partner of the Leprosy Mission mentioned a VTC network called SKIP. SKIP is a network of VTC's in India that organizes activities both on a national and regional scale. It might be that they also perform lobby activities to influence government policy. *Internet research has not provided more information.*

For more information about VTC networks see:

<http://labour.nic.in/annrep/annrep0405/english/Chapter15.pdf>

There are 14 stakeholders, within the Indian Economy, who are connected with the need and use of Vocational education & training, besides Primary Literacy and Entrepreneurship skills. Among these 14 are PSSCIVE (Pandit Sunderlal Sharma Central Institute for vocational education), NCERT (National Council of Educational

Research and training) and MHRD (Ministry of Human Resource Development) (indiaeducation, 2006).

Are there examples known of successful and unsuccessful networks?

NA

(New) initiatives / intentions from the trade and industry (private) sector around VET

GMR Varalakshmi Foundation

The GMR, a large construction firm in Hyderabad has launched a corporate social responsibility foundation named the GMR Varalakshmi Foundation. This foundation cooperates with a livelihood training centre in Hyderabad (Interview mr. Gollapalli, 2006).

Education of teachers

In rural areas is often difficult to find competent and well trained teachers due to lack of pre service training and industries. The R & D institutions like CIVE and other existing training institutions (VTCs) such as TTIs, it is Polytechnics, KVKs, NGOs should be involved in practical training of trainers. The proposed BLVETIs should coordinate and assume the major role of providing training to the teachers/trainers. The community polytechnics should also be used for providing a variety of short duration skill programmes to trainers (unesco unevoc, 1997)

Technical experts are drawn from industry, professional institutions including laboratories and universities, and from among manufactures in local small scale enterprises (unesco unevoc, 1998).

VET specialisations

Medical, Nursing, Engineering and IT fields are important and these subjects get more attention. The traditional technology in agricultural and allied industry gets least attention in formal VET (Enquete, 18 Feb 2006).

Computers, Refrigeration & Air Conditioning technique, Radio & TV mechanism, Diesel Mechanic, Auto mechanic get more attention. Tailoring, Carpentry, Welding, Plumbing & Masonry, Auto electrical get less attention (Enquete, 11 feb 2006).

The PSS Central Institute of Vocational Education is an apex institute which provides technical support to states and schools introducing vocational courses. It has developed 80 competency based vocational curricula in agriculture, business and commerce, engineering and technology, health and paramedical, home science, and humanities at the higher secondary school stage.

Currently, over 150 vocational courses are being offered under the centrally sponsored scheme in different states in India (UNESCO/UNEVOC, 1998).

Strengths and weaknesses

| Strengths | Weaknesses |
|---|--|
| 70 – 80 % of the VET graduates finds work and some graduates go to higher education (enquete, | The existing examination system does not have the mechanism for evaluation of skill competencies and |

| | |
|--|---|
| 11 Feb 2006). | personality traits being inculcated among the students (unesco unevoc, 1997). |
| The best practices are known for job related training. Private training should be encouraged because of lack of governmental jobs, and due to unemployment, cottage and small-scale industries must be encouraged to organise VET as well. This is almost true in national level. An example of this success is the govt. starting intermediate level vocational trainings for 10th failed or passed and Junior colleges. This is a recent paradigm shifting in Job & Income training (Enquete, 13 Feb 2006). | A large population of the rural areas lives below the poverty line and cannot afford to join the TVET system. Therefore, there is a need to provide financial support through scholarships/stipend/loans assistance for students. TVET books are costlier than the general textbooks. They should be made free of costs for the students (unesco unevoc, 1997). |
| Modern technical training probably needs to complement, rather than replace indigenous work techniques (ILO, 2002). | Vocational training is often equated with technical training/education, and that too is geared towards the formal sector. |
| Now the Government is promoting and recognising the vocational courses which are providing employment in the industrial sector. | There is a strong rural-urban bias (ILO, 2002) |
| Now we see many students are coming forward for the VET, in our institution (Word and Deed) around 500 candidates are applied for various courses where as we have the facility for 250 candidates only (enquete, 11 feb 2006). | The training system is highly centralised. One reason for this is the colonial legacy, which prevented vocational education from developing local approaches. Another reason is a carry-over of the basic approach to development of the 1950s and the 1960s (ILO, 2002). |
| Other aspects of the image of VET mentioned by COUNT, a partner of Woord en Daad are that VET is encouraging, and that is provides a basic foundation for future recognized technical status and courses. Certain exemptions are allowed for subjects and time period for higher technical qualification, some technical subjects exempted in future studies (enquete, 13 Feb 2006). | Generally, the issues of diversification and "vocalionalisation" of secondary education are dealt with purely in economic terms (earning opportunities, better jobs and higher technical fields). |
| The people applying for a place in a VET institution outnumber the places. This means either that VET is very popular, or there is too little place for students to join a VET course. | Public technical and vocational training in India do not have a good track record, particularly in terms of efficiency and flexibility; such training is sometimes also far removed from local, cultural, social and market realities. |
| | Many students pursuing technical/vocational training are unlikely to obtain the full-time wage employment they sought. |
| | In most rural areas, facilities for elementary education are absent, let alone vocational facilities. Some efforts at developing such facilities are being made, but are unfortunately not meeting with any success, apart from a few isolated examples (ILO, 2002). |
| | Vocational education in India often is associated with low prestige, education for the poor and educationally backward sections of society, second-class education. There is negative attitude towards manual work, because this is meant for lower caste, racial minorities and women (country report Willemien, 2006) |
| | Most of the Vocational training centres are established in the urban areas as the employment opportunities are more in the urban areas. |
| | Lack of proper infrastructure, and inadequate funds are constraints to organise VET in India (Enquete, 13 Feb 2006). |

If vocational training and education are to cater to both formal and informal sectors, it is essential to take into account the traditions and values of the system of vocational learning in working life. Such training needs to cater to the requirements of local development and be based on an understanding of the kinds of competencies people in the informal sector want, need and utilise; the socio-economic and cultural contexts within which they work and how they cope; and the skills, capabilities, attitudes and values that are required to sustain their livelihood strategies. The very concept of learning needs to address capabilities to change professions, learn and adapt quickly to changing environments. Indeed, the understanding of the livelihood strategies in specific social and cultural settings, disaggregated along caste, ethnic, class and gender lines, as well as the labour market conditions, is of paramount importance if a meaningful re-orientation of the approaches to training and skill-building has to be made (ILO, 2002).

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TECHNICAL VOCATIONAL EDUCATION AND TRAINING SYSTEM IN INDIA

1.1 National Policy on Education: 1986

The Programme of Vocationalisation of Education has been accorded very high priority in the National Policy on Education, 1986. The Policy, inter alia, states:

"The introduction of systematic, well-planned and rigorously implemented programme of vocational education is crucial in the proposed educational re-organization. It further states that vocational education will be a distinct stream intended to prepare students for identified vocations spanning several areas of activity'

In February 1985, the Government had set up a Working Group headed by Dr. V .C. Kulandaiswamy, Vice-Chancellor, Anna University, Madras to formulate the concept of vocationalisation at different levels, recommend the nature of Courses to be taken up and the linkages required among different agencies running vocational programmes and to prepare an action plan for promotion of vocationalisation in the country .The Group recommended that the Union Government should be responsible for policy guidelines, coordination and standardization, provide guidelines for curriculum development and consultancy service, undertake review and evaluation of the programme. The Group also recommended that the Union Government should give liberal financial assistance for achievement of the targets fixed. The Programme of Action 1992 prepared by the Ministry for implementation of the New National Policy on Education in the field of vocationalisation suggested that the report of the Kulandaiswamy Working Group provides a suitable model for implementation with appropriate margin for flexibility to suit the requirements of different States. A detailed framework of the programme of vocationalisation of education to be launched in the country was formulated in consultation with experts and discussed in the Conference of State Education Ministers held in April 1987, and a broad consensus was arrived at on various components of the Programme. In the Conference, the State representatives were of the view that liberal financial assistance by the Centre was necessary for implementation of this programme. Accordingly, a Centrally Sponsored Scheme of Vocationalisation of Secondary Education, under which substantial financial assistance was provided to the State Governments for implementation of this programme was launched in the year 1988. The main objectives of the Scheme of Vocationalisation of Secondary Education are to provide diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and to provide an alternative for those pursuing higher education.

1.2 Present Status of Vocational Education and Training (VET)

As per the Allocation of Business Rules, the subject of vocational education is allotted to the Ministry of Human Resource Development (Department of Secondary & Higher Education) whereas that of Vocational Training to the Ministry of Labour. Following major types of technical and vocational education and training programmes are provided through different types of institutions:

(i) Vocational Education

Under Centrally Sponsored Scheme of Vocationalisation of Secondary Education, vocational education at +2 stage is offered in about 6800 schools. The duration of course is of 2 years. The entry qualification is 10th pass. The courses are terminal in nature. A total of about 150 vocational courses are available covering six major areas, namely, Agriculture, Business and Commerce, Engineering and Technology, Health and Paramedical, Home Science, and Humanities, Science and Technology. Vocational courses are offered by all the states and UTs except Rajasthan.

(ii) Vocational Training

Vocational training facilities are available in 4,591 NCVT approved Industrial Training Institutes (ITIs) with total enrolment capacity of about 6.5 lakh students per year. The entry qualification is 8th or 10th pass depending upon the needs of the training. These institutions mainly cater to the needs of industrial sector. The training covers 43 engineering and 24 non-engineering trades. In addition to these, there are Advanced Training Centres (ATCs), which provide training in specialized areas.

(iii) Polytechnics

Technical Diploma level courses are offered in 1224 AICTE approved Polytechnics. The state-wise position is given in Annexure III. These are Diploma courses. The total enrolment capacity is 1,88,300. The entry qualification is 10th pass. The duration of diploma course is 3 years and is terminal in nature. The polytechnics are under the administrative control of respective State Governments.

{iv} Community Polytechnics

The Scheme of Community Polytechnics was initiated during 1978-79. The funds for this scheme are provided under a direct central assistance scheme. The Community Polytechnics are not separate institutions but a wing attached to the polytechnics. The Community Polytechnics are expected to perform activities like rural technical manpower development, transfer of technology and provide technical support services needed by the community. As on date, there are 675 community polytechnics providing training to about 4.5 lakhs person every year. The duration of courses is 3 to 9 months. There is no entry educational qualification prescribed and the courses are flexible and non-formal.

{v} Jan Shikshan Sansthan

It is a Central Sector Scheme providing non-formal vocational courses mainly to urban community. There are 108 Jan Shikshan Sansthans.

{vi} Continuing Education and Distance Learning

The Indira Gandhi National Open University (IGNOU) and the National Institute of Open Schooling (NIOS) have launched programmes of vocational education in distance mode for the benefit of young people. They offer vocational courses in agriculture, industry, trade and commerce for persons above the age of 14, even if they do not have a formal school certificate.

{vii} Vocational Education by University Grants Commission

The UGC launched vocational education programme in the year 1994. Under the programme, one vocational subject was to be offered to the students in combination with two other optional subjects. The vocational subjects are offered in the area of Humanity, Science and Technology, Information Technology, Business and Commerce. There are

34 courses, offered by 1850 colleges of the country. The scheme has been modified. Students are allowed to take some Vocational course in addition to the normal three subjects the under graduate level.

{viii) Apprenticeship Training

Under the Apprentice Act, the facilities of apprenticeship training up to one year are available to the graduate of +2 vocational stream. During the training period, the trainees are paid monthly stipend, which is shared between the Central Government and employer, on 50:50 basis Apprenticeship facilities are also available to diploma holders and graduates of Engineering Colleges, under the act.

{ix) Others

There are several Ministries and Government Departments offering a variety of formal and non-formal training programmes in their respective subject areas. The Khadi Village Industries Commission, Department of Small Scale Industries and Development, Ministry of Tribal Welfare, Ministry of Rural Development, Ministry of Health & Family Welfare, Ministry of social justice & Empowerment, Ministry of Tourism, Ministry of Industry, Ministry of Food Preservation and Ministry of Agriculture are some of the Ministries/Government Organisations, which are offering such facilities. In addition to this, there are various private providers offering TVE& T programmes, particularly in IT Sector.

Appendix 2: Vocational training schemes in India

Schemes of the Ministry of Rural Areas and Employment

Source: InFocus Programme on Skills, Knowledge and Employability, skills working paper, Informal Economy: Training and Skill Formation for Decent Work in the Informal Sector: Case Studies from South India, ILO, Amit Mitra (2000?)

The Ministry of Rural Areas and Employment administers a number of schemes aimed at creating sustained employment opportunities to secure a certain minimum level of employment and income for the rural poor. These include the Jawahar Rozgar Yojana (JRY) Employment Assurance Scheme, the Integrated Rural Development Programme (IRDP), the Programme for Development of Women and Children in Rural Areas (DWCRA), and the Training of Rural Youth for Selfemployment (TRYSEM). With the exception of DWCRA and TRYSEM which are described below, the other schemes do not have much of a training component.

- DWCRA:

Introduced in 1982-83, as a sub-scheme of the Integrated Rural Development programme, DWCRA aims at developing income-generating skills and promoting activities among poor women in rural areas, subsequently improving their social and economic status. The basic unit under this scheme is a group of 10-15 poor women (though the size may be smaller in different areas). The programme is implemented by the District Rural Development Agencies. Any economic activity suited to groups of women in line with their skills, aptitudes and local conditions can be taken up under the scheme. NGOs are also involved in the implementation of the programme and are supported by the Council for Advancement of People's Action and Rural Technology (CAPART), an organisation set up under the Ministry of Rural Areas and Employment to coordinate the development work of voluntary agencies in India. According to official estimates, about 350,000 women have benefited from this scheme up to April 1998. However, due to poor backward and forward linkages, lack of spontaneous financial support and selection of non-viable activities, several groups of beneficiaries are no longer supported.

TRYSEM:

Established in 1979, the Training of Rural Youth for Self-Employment is aimed at developing technical and entrepreneurial skills among rural youth from families below the poverty line aged between 18 and 35, to enable them to take up income-generating activities. Training given under this scheme is based on the needs of the area, and is provided at such training centres as the ITIs, community polytechnics, extension training centres, Krishi Vigyan Kendras, khadi and village industry boards, state institutes of rural development or institutions run by voluntary agencies. Training under this scheme is normally for six months, during which the trainees receive a stipend. Besides, financial assistance is also provided to the training institutions and master craftsmen. In all, over 4 million youths have been trained under the TRYSEM up to March 1998. However the TRYSEM has a weak link with the overall strategy of self-employment. The training is generally not related to the capacity or aptitudes of the trainees and unrelated to the demand for a particular skill.

Training under the Department of Women and Child Development

The key training activities of the Department are:

- Provision of Support to Training and Employment Programmes (STEP) for women: since the inception of the programme, 51 projects have been approved and over 250,000 women and youth have participated in them.
- NORAD-assisted programme on employment cum income-generation-production units: under this programme, training is imparted to women and school dropouts in selected nontraditional trades such as electronics, watch-manufacturing and assembly, printing and binding, handlooms, weaving and spinning, garment making, beauty culture, typing and shorthand. The programme provides financial assistance to the grantee organisation for renting sheds required for training-cum-production purposes, meeting training cost, payment of stipend to trainees, and the purchase of machinery and equipment required, dormitory facilities and day care centres.
- Scheme of condensed courses of education and vocational training programme for women: this scheme, started by the Central Social Welfare Board and revised in 1990-91, aims to provide educational opportunities to needy women to enable them to acquire requisite qualification and develop appropriate skills so as to make them eligible for identifiable remunerative work. Moreover, voluntary organisations are given grants to impart training to needy women in the 15+ age group in different vocations, providing them opportunities for employment and self-employment.

Training provided under the Khadi and Village Industries Commission (KVIC)

The KVIC has 51 training centres comprising 12 multidisciplinary training centres, 12 Khadi Gramodyog Vidyalayas, 24 village industries training centres and three state board training centres. In addition, there are 10 training-cum-production centres, which are owned by private companies. At present, training is provided in 120 courses of which about 100 courses relate to only about 25 industries and the remaining 20 courses relate to various sponsored and special programmes. Training is given in nine broad areas: artisan's courses; general management; salesmanship; marketing management; entrepreneurship development; supervisory courses; textile chemistry; accountancy; and refresher courses. In the period from 1990/91 to 1995/96, a total of 52,377 persons were trained in KVIC training centres.

Training provided under KVIC has not been much of a success. A study of 1997, undertaken by the Institute of Applied Manpower Research (IAMR), shows that apart from not being employment-oriented, the training does not appear to encourage self-employment among the rural youth. The study also observed that some of the courses are outdated and the quality of training is poor. The certificates awarded by the KVIC are not recognised by employers, other than the KVIC itself. The existing training capacity is not fully utilised and the infra-structural support available in training centres is inadequate as most of them are not equipped with modern equipment. Furthermore, only a quarter of the existing teaching staff are suitably qualified to teach. Another striking observation brought out by the study is the complete absence of linkages between KVIC and other institutions such as the Department of Rural Development, small-scale industries and community polytechnics, which offer similar courses to rural youth. Prime Minister's Rozgar Yojana

Launched in October 1993, the Prime Minister's Rozgar Yojana (PMRY) aims at providing wage employment and self-employment to educated unemployed youths aged between 18 and 35. The scheme envisages compulsory training for entrepreneurs for a period of 15 to 20 working days for the industrial sector after a loan is approved. The

scheme is targeted to provide assistance to 220,000 educated youths during the year 1999-2000.

An evaluation of this programme (IAMR, 2000) revealed that it generates employment for about 2.4 persons per unit. The employment generation potential is found to be more in the case of industrial units (3.5 persons) than in the service (2.2 persons) and trade (1.9 persons) sectors. Training has been useful for an overwhelming majority of the beneficiaries (81 per cent). Many more youth seek assistance under the PMRY. However, almost half of the total applications are rejected by the taskforce committees of the District Industry Centres (DICs). The most important reason behind these rejections is inadequate technical skills. Therefore, the need for more training facilities is being increasingly felt by the youth before setting out on their ventures. Also there is a lack of publicity campaigns on the various aspects of PMRY like eligibility, fund availability, skills required and markets. As a result, there is little awareness among the youth about the scheme.

Community Polytechnics

The Community Polytechnics (CPs) scheme was initiated by the Department of Education in 1978/79. It aims at promoting rural industrialisation through the application of science and technology without environmental degradation. More specifically, it seeks to bring about socio-economic development and improve quality of life by providing location and culture-specific, non-formal, need based, short-term training in skill-oriented technical and vocational trades irrespective of age, sex or educational qualifications. The target groups for training specifically include unemployed and underemployed youth, school and college dropouts and the underprivileged and disadvantaged groups including women, minorities and weaker sections of society. Community Polytechnics are not separate institutes, rather, some of the existing polytechnics have simply been designated as CPs, and selected to receive central assistance under the scheme. There are 516 CPs, 83 of which were set up to cater to the needs of women. It has been found that 43 per cent of those trained in CPs are women, 18 per cent belonged to the Scheduled Caste category, four per cent to the Scheduled Tribe and 13 per cent to minority communities. In all, about 620,000 rural youth have been trained by CPs till March 1999.

Persons trained in civil construction, plumbing, manufacturing, welding, sheet metal, moulding and electricals, have better opportunities for wage employment. Some CPs have done good work in manpower development and training, but their impact in the rural sector, as a whole, has been limited as they work in a limited and isolated manner. In most of the cases, the benefits of the scheme go to well-off groups and this entails a waste of scarce resources. Because of the multiplicity of Government and voluntary agencies involved in rural development, it is difficult for CPs to collaborate with all of them. This has resulted in considerable duplication of efforts. Training under the Community Polytechnics scheme is not recognised by employment exchanges for employment or for loan purposes (TTTTI, 1999).

Bharatiya Yuva Shakti Trust

Bharatiya Yuva Shakti Trust set up in April 1990 with the support of the Confederation of Indian Industry, aims at helping unemployed or under-employed youths in the age group 18-35 to set up or develop their own business. Their support takes various forms such as donations, sponsorship of events, professional assistance and mentoring on a purely voluntary basis. The most remarkable feature of the trust is to provide each beneficiary with a mentor, on a one-to-one basis in the gurushishya tradition, according

to which the teacher not only teaches but also guides and helps develop the disciple. The mentor gives professional advice, maintains regular contact with the business, monitors progress, helps in addressing the problems of the assisted economic units and in developing them. Since its inception, this scheme has helped over 450 business units employing more than 1,540 people in Delhi, Haryana, Chennai, Hyderabad and Pune.

Entrepreneurship Development Centres/Institutes

There are a number of entrepreneurship development centres in the country, which have been providing training in different fields based on the resource endowment of the area. These centres have also prepared sector profiles for sectors where micro-enterprises are predominant such as textiles and garments, agro-based food processing, automobile, mechanical, electrical, chemical industries, paper and printing, forest and animal based service enterprises, and leather-based industries, etc. Also, they provide small business management training and run training programmes for wage employment. As a result a large base of training and R&D has been created in the public and private sectors.

Training under the National Renewal Fund (NRF)

In 1992, in the wake of the Structural Adjustment Programme (SAP), the Government launched the National Renewal Fund (NRF) as a social safety net to provide:

- Assistance to cover the cost of retraining and redeployment of employees arising from modernisation, technology upgrading and industrial restructuring;
- Funds, where necessary, for compensation of employees affected by restructuring or closure of public and private sector industrial units; and
- Funds for employment generation schemes in both the organised and unorganised sectors in order to provide a social safety net for those affected by the consequences of industrial restructuring.

The idea of the scheme was that the persons benefiting from it would set up small enterprises (especially be self-employed) with the capital that they obtained, thereby taking care of their own needs and, eventually, contributing to the growth of the economy.

For retraining and redeployment of redundant workers, the Employees Assistance Centres (EACs) were set up under the NRF. In order to assess the training needs of redundant workers, these centres make a quick survey with a view to obtaining broad information necessary for framing an annual action plan to retrain workers. The survey collects information on the size of the target group, training facilities available in the vicinity and costs, and possible avenues for self- and wage employment. It attempts to provide skill profiles of eligible workers and their preference for either wage or selfemployment or counselling. The survey is also required to project possible vacancies in different categories of vocations. Surveys were conducted on the prescribed lines by almost all the EACs.

EACs undertake the identification of appropriate training institutions by collecting information through formal questionnaires and visits where necessary. Feedback is also collected from the trainees. EACs further help in the redeployment process by liaising with prospective employers. Also, they assist those who prefer to set up their own ventures. Despite variations in training methodologies, by and large, most of the training institutions follow a logical approach to information gathering, development of action plans, systematic surveys, counselling, identification of training resources of both the

public and private system. They conduct follow-ups and consultations with beneficiaries as well as the employers' associations and trade unions.

The NRF experience in retraining redundant workers, however, has not been successful. As of the end of August 1998, an estimated 118,509 persons had retired under the voluntary retirement scheme from public sector undertakings. Only a quarter of those who chose the voluntary retirement scheme were retrained, and 7 per cent of those retrained were redeployed. It is quite surprising that out of the total expenditure of Rs.2.2 billions, only one per cent was spent on retraining and the remaining amount was used for the provision of assistance to voluntary retirement (Chandra, 1999).

Schemes under CAPART

The mandate of the Council for Advancement of Peoples Action and Rural Technology (CAPART) of the Ministry of Rural Development is to:

- Facilitate the implementation of sustainable rural development projects;
- Act as a national data bank on voluntary action;
- Act as a national nodal agency for development and dissemination of appropriate rural technologies;
- Promote people's participation and voluntary action; and
- Network with national and international institutions.

Some major initiatives of support available from CAPART directly relevant to the informal sector are as follows:

a. Public Cooperation Scheme

This scheme aims at promoting innovative and integrated projects and programmes not already covered under one of the existing Government schemes. Micro-finance, health and sanitation, education, rural energy, sustainable development, disaster management, housing and environment protection are some of the areas where innovative projects are offered to voluntary organisations who can take up either a village(s) or Panchayat(s) for comprehensive development for a period of three years by holding Participatory Rural Appraisal sessions with the gram sabha (village council).

b. Rural Technology Scheme

This is a scheme implemented in consultation with Technology Resource Centres, mainly located in the rural areas operating in technology up-gradation and skills developments, to transfer technologies already developed by national laboratories and institutions. The technologies identified concern rural housing, water conservation, village industries, food processing, herbal medicines, biomass utilisation and handicrafts.

c. Disability Action Scheme

This scheme helps the disabled people to become self-supporting and become partners in the developmental processes. It works with voluntary agencies that have the capacity to work in the field and that are development-oriented.

d. Young Professionals Scheme

The Council makes campus recruitments for professionals to work in rural and micro enterprises. It offers Rs. 8,000 (approx. US\$ 160) as a stipend for trainees, of which 25 per cent is to be borne by the voluntary organisation where the trainee works. After the training, the professionals can start their own voluntary organisation or NGO to implement CAPART's schemes.

There are formal institutions such as the Khadi and Village Industries Commission (KVIC) under the Ministry of Industries and other institutions in the Departments and Ministries of Rural Development, Child Welfare and Women's Development, which were created to assist the development of village, cottage and small scale industries including the informal sector. But as some studies and particularly the recent survey of Raghunandan (2000) shows, the relevance of such formal institutions for the development of the informal sector has been very minimal. They however organise workshops and sponsor training programmes mainly through NGOs.

There are also other formal institutions in higher education, Industrial Training Institutes, science and technology including Department of Science and Technology, national laboratories under the Council of Scientific and Industrial Research (CSIR) too. While much of their work and efforts are concerned with the industrial demands and other science and technology demands, only a small proportion of their effort may be said to be relevant to the needs and demands of the informal sector (Raghunandan 2000). For instance, the laboratories of the Council of Scientific and Industrial Research in leather, food processing, mechanics, electronics, drugs and pharmaceuticals, chemical and biological research hardly reach out to the informal sector. They offer very few training programmes directly. However, indirectly, some of their programmes are meaningful and find relevance through the intermediary action of NGOs. Training in skills development, vocational education and other support activities of CAPART and other Government agencies are also offered through NGOs.

APPENDIX 3

Mishra, Arun K. 1993. "Technical/vocational education in India." In R.V.R. Chandrasekhara Rao, ed., *Technical and vocational programmes through distance education*, Hyderabad: Dr. B. R. Ambedkar Open University, pp. 55–56, 58–63, 65–72.

In the sector of education there are three major types of vocational/ technical education and training programmes.

TECHNICAL INDUSTRIAL ARTS AND CRAFTS SCHOOLS

These technical schools which prepare students for the lower secondary stage Board examination are mainly located in the states of Maharashtra Gujarat, Andhra Pradesh, Karnataka and Kerala. There are 3720 such schools which enrolled 314104 students in 1987-88. In addition to the general school's curriculum for the tenth grade examination, the student is offered one vocational subject such as carpentry, black smith, moulding, welding, fitting, turning, plumbing, building construction, rural technology, textile technology, wireman etc. These schools were started more as a feeder to polytechnics rather than for preparing young people for vocational fields. They continue today as an offshoot of the general schooling.

HIGHER SECONDARY VOCATIONAL EDUCATION

The higher secondary vocationalisation programme aims to develop skilled manpower through diversified courses to meet the requirements of mainly the unorganised sector and to prepare people for the world of work in general through a large number of self employment oriented courses, not precluding wage employment orientation of many

courses. Through diversification into production and service oriented courses, it is desired to reduce the aimless pursuit of higher education and thereby reduce pressure from the tertiary education. In 1989–90 there were more than 150 courses in different states which are grouped under the major areas of agriculture, business and commerce, engineering and technology health and para medical, home science and humanities. The design consists of theory and practice relating to the vocational field, related subjects, language and general foundation studies which includes entrepreneurship. In 1989–90 a total of 168,680 students were enrolled in the first year of the two year programme. There are more than 5000 full time teachers teaching these courses.

TECHNICIAN EDUCATION

This sub-system consists of a well knit chain of polytechnics which provide broad based education in engineering as well as some non-engineering areas. The minimum qualification for entry into a polytechnic is grade X certificate. The courses are generally of three year duration but a few range between two to four years. There are nearly 500 polytechnics with the annual admission capacity of 65000. The training is mostly institutional (with some industrial experience), the curricula predominantly theory oriented and location mostly urban. They aim to meet the manpower needs of the organised sector.

LABOUR

There are two notable training programmes under the auspices of the Labour Ministry for primarily skilled workers for the organised industrial sector.

CRAFTSMEN TRAINING SCHEME

The craftsman training is offered in nearly two thousand government run or privately managed Industrial Training Institutes. The intake capacity of these institutes amounted to about 327,000 in 1987–88. There are, in all, 64 trades of which 38 belong to the engineering group. The graduates of these courses find placement in organised public and private sector industrial and business establishments. Some of them go for self employment also. The ITIs offer both X+ and VIII+ level courses in nearly equal numbers. Most of the courses range in duration from one to two years. The National Council of Vocational Training is the supreme coordinating and policy making body which awards certificates to students on completion of courses. The curriculum is highly practice oriented and the elements of general education are kept at minimum. An ITI graduate is not eligible for university education.

APPRENTICESHIP TRAINING SCHEME

The scheme aims to regulate the programme of training of apprentices in the industry so as to conform to the prescribed syllabi of the Central Apprenticeship Council and to utilize fully the facilities available in the industry for practical training with a view to meet the requirement of skilled workers in industries. There are four categories of apprentice programme: Graduate Apprenticeship for engineering graduates, Technician Apprenticeship for diploma holders from polytechnics, Trade Apprenticeship for the graduates of ITIs and Technician (Vocational) Apprenticeship for the graduates of higher secondary vocational courses. There are 71 subjects and 12,000 technician apprentices training at a time. The technician (vocational) apprenticeship is a recent inclusion with

only twenty designed areas so far, with the expansion of trade list expected in near future. The trade apprenticeship programme has an intake capacity of over 190,000 of which about 132,000 are actually utilised. There are 140 apprenticeable trades which run for durations of one to four years. Appropriate rebate is allowed for the graduates of the craftsman training scheme. The Central Apprenticeship Council awards certificates to the graduates on successful completion of the training.

In addition to the two major training programmes presented above, the Ministry of Labour also runs advanced Vocational Training System and vocational training programmes particularly for women in separate institutes.

HEALTH AND PARAMEDICAL

There are three councils at the national level to regulate the training programmes; in their respective areas such as the Indian Nursing Council, the Indian Pharmacy Council under the Ministry of Social Welfare. In other health and paramedical areas, the health departments of the state governments conduct their own training programmes to meet their health manpower requirements. These courses, under the control of a variety of authorities, are marked by an absence of standardised course content and proficiency level. It is difficult to make an estimate of output of the health manpower training and production system. Hospital based training, as an internal supply system, is also a prevalent mode. The curricula have little theoretical content in many situations and almost always these courses lead to a dead end in terms of opportunity for higher education.

AGRICULTURE

The Indian Council of Agricultural Research is primarily concerned with graduate and post graduate agricultural education and research. There are a few non formal training programmes for the rural youth through the Agricultural Science Centres and Agricultural Universities. There is hardly a system for production of middle level skilled manpower for the agricultural sector. In some states there are some government run agricultural schools but they often provide post induction training to village level workers and other personnel. A manpower production system aiming at vocational development for self employment hardly exists in India in the domain of agriculture.

BUSINESS AND COMMERCE

The training system in the field of business and commerce is highly diverse. There are a large number of institutes and teaching shops throughout the country teaching many of the office trades and other vocations in salesmanship, marketing etc. There is no available estimate of the size of the supply system and the quality of its products.

OTHERS

There are a variety of other structured programmes in forestry, handicrafts and cottage industry, music, commercial arts etc. which are unquantified and lack qualitative uniformity.

Extra Notes on Vocational Training Courses in India

I. Informal JBC: Qualification - 7th to 10th Class fail

The short-term courses for a period of 6-months to 1 year, is eligible for the students of class 10th or so failed candidates. They need to do apprenticeship for one year after completion of the training.

| Sl. | Courses Offered | Qualification | Course Duration |
|------------|------------------------|----------------------|------------------------|
| 1. | Cutting and Tailoring | 7 th Pass | 6 Months |
| 2. | Light Motor Driving | 7 th Pass | 45 Days |
| 3. | Electrician | 7 th Pass | 6 Months |
| 4. | Auto Electrician | 7 th Pass | 6 Months |
| 5. | Diesel Mechanic | 7 th Pass | 6 Months |

II. Non-formal technical training: Qualification - SSC failed / dropouts

(1) Non-Technical Courses : Courses Duration – 6 months

| Sl. | Courses Offered | Employment Opportunities |
|------------|-----------------------------------|---------------------------------|
| 1. | Building Construction | Semi-govt. organization |
| 2. | Automobile Engineering Technology | Private Factories |
| 3. | Air Condition and Refrigeration | Public Sector |
| 4. | Building Maintenance and Repairs | Domestic Centers |
| 5. | Electrician | House Wiring |
| 6. | Plumbing | Domestic Work |
| 7. | Welding | Domestic Work |
| 8. | Carpentry | Domestic Work |
| 9. | Motor Driving | Self Employment |

(2) Technical / Computer Science Level: Qualification : SSC Failed / Dropouts

Duration : 6 months

| Sl. | Courses Offered | Opportunities |
|------------|--|------------------------------|
| 1. | Advanced Diploma in Computer Applications | Semi Govt. Organizations |
| 2. | Advanced Diploma in Information Technology | Private Sectors – Industries |
| 3. | Hardware Technology | Self-Employment |
| 4. | Data Entry | |

(3) Agricultural Courses: Qualification : SSC Failed

| Sl. | Courses Offered | Duration of Course | Opportunities |
|-----|-----------------------|--------------------|------------------------|
| 1. | Veterinary Compounder | One Year | Govt. Animal Husbandry |
| 2. | Sericulture Assistant | One Year | Private Farms |
| 3. | Fisheries Assistant | One Year | Private Farms |
| 4. | Farm Assistant | One Year | Govt. & Private Farms |
| 5. | Mushroom Culture | 3 Months | Self Employment Scheme |

III. Formal Courses:

(1) Intermediate Level Short Term Vocational Courses : Qualification: Intermediate (10+2)

Course Duration : 3 Months

Opportunities: Govt. / Semi Govt. / Private & Public Sectors

A. Computer Science: Courses Offered:

- (1) MS Office,
- (2) Unix, C & C++
- (3) V. B. & Oracle
- (4) V. B. & ASP
- (5) Oracle with D2K
- (6) Oracle with DBA
- (7) Desk Top Publishing
- (8) Auto CAD
- (9) Accountancy Packages

B. Business & Computer Courses:

Course Duration : One Year

Courses Offered:

- (1) Accountancy,
- (2) And Taxation.

(2) Intermediate / Graduate Level: Qualification : 10th Class Pass / Intermediate

Course Duration : 2 Years

Courses Offered:

| Sl. | Courses Offered | Opportunities |
|-----|--|---|
| 1. | Diesel Mechanic with 2 years apprenticeship | Railway Recruitment Board / State Road Transport Corporation / Private Industries / Workshops |
| 2. | Electrician with 1 year apprenticeship | Railway Recruitment Board / State Electricity Board / Bharat Heavy Electrical Ltd. / Private Industries / House Wiring / Motor Wiring |
| 3. | Electronic Mechanic with 1 year apprenticeship | Railways Recruitment Board / Electronic Corporation of India / Bharat Electronic Ltd. / Private Industries |
| 4. | Fitter with 1 year apprenticeship | Railway Recruitment Board / Private / Big Industries / Lathe Mechanic / Drilling Workshops |

